

Patent Claims

1. A hinge for connecting a hood, especially an engine
5 hood, to a vehicle body, characterized in that the hinge is
designed in such a manner that it releases the hood in the
event of an accident, especially with a pedestrian.
2. A hinge for connecting a hood, especially an engine
10 hood, to a vehicle body, having at least one hinge carrier
arranged on the vehicle body, at least one hinge arm
arranged on the hood and at least one connecting part for
the pivotable connection of the hinge arm to the hinge
15 carrier, characterized in that the connection of the hinge
arm to the hinge carrier is released in the event of an
accident by removal and/or destruction of the connecting
part.
3. The hinge as claimed in claim 2, characterized in that
20 the connecting part is designed as an explosive bolt or
shear bolt.
4. The hinge as claimed in claim 2 or 3, characterized in
that the connecting part is guided in at least one socket on
25 the hinge arm and in at least one socket on the hinge
carrier and, in the event of an accident, is removed from at
least one socket.
5. The hinge as claimed in claim 4, characterized in that
30 the connecting part is designed as a bolt which is pulled
out of at least one of the sockets.

6. The hinge as claimed in claim 4 or 5, characterized in that at least one actuating means is provided for actuating the connecting part in the event of an accident.

5 7. The hinge as claimed in claim 6, characterized in that the actuating means comprises a pyrotechnic element.

8. The hinge as claimed in claim 6 or 7, characterized in that the actuating means is an inflatable airbag and/or a
10 gas-conducting element.

9. The hinge as claimed in claim 8, characterized in that the airbag and/or the gas-conducting element acts on the connecting part via at least one transmission element.
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10. The hinge as claimed in claim 9, characterized in that the transmission element is designed as a lever.

11. The hinge as claimed in one of claims 8 to 10,
20 characterized in that, on filling with gas, the airbag and/or the gas-conducting element, owing to its expansion, exerts a push or a pull on the connecting part and/or the transmission element.

12. The hinge as claimed in one of the preceding claims,
25 characterized in that the connecting part is of spherical design, and the hinge carrier has at least one socket which corresponds with the connecting part and is designed in such a manner that it releases the connecting part in the event
30 of an accident.

13. The hinge as claimed in claim 12, characterized in that the hinge carrier has at least one moveable hinge carrier part which, in the event of an accident, is moved in relation to at least one fixed hinge carrier part in such a manner that the connecting part accommodated therein comes free.

14. The hinge as claimed in one of the preceding claims, characterized in that the hinge arm has a deformation region for the specific deformation of the hinge arm in the event of an accident.

15. The hinge as claimed in claim 14, characterized in that the connecting part is disengaged from the hinge carrier by deformation of the hinge arm.

16. The hinge as claimed in one of the preceding claims, characterized in that at least one limiting means is arranged for limiting the relative movement between the hinge carrier and hinge arm.

17. The hinge as claimed in claim 16, characterized in that the limiting means is a rebound strap and/or a lever guided in a coulisse.

18. An airbag for opening a hood connected by a hinge to a vehicle body, especially an engine hood, characterized in that the airbag is designed in such a manner that it releases the hood from the vehicle body when deployed in the region of the hinge.

19. The airbag as claimed in claim 18, characterized in that airbag regions are arranged directly on the hinge.

20. The airbag as claimed in claim 19, characterized in that the airbag, when deployed, is first of all deployed in the regions arranged on the hinge.

- 5 21. The airbag as claimed in claim 19 or 20, characterized in that a gas-conducting system, in particular a gas lance, is arranged in the interior of the airbag, said lance conducting the gas used for the deployment into the airbag regions arranged on the hinge.